

End-of-Waste Decision ART28-0083**of 2nd July 2024****establishing criteria determining when Polyethylene terephthalate (PET) pellet
pellet to be waste under Regulation 28 of the European Union (Waste Directive) Regulations
2011 – 2020***Section 1***Subject matter**

End-of-Waste Decision ART28-0083 establishes criteria determining when recycled Polyethylene terephthalate (PET) (hereafter referred to as PET) resulting from a recovery operation ceases to be waste.

These criteria do not:

- affect the obligation of the producer to hold and comply with a waste collection permit, certificate of registration, waste facility permit or waste/ industrial emissions licence or any other National or European legislation which may apply when transporting, handling, storing or processing waste;
- affect permitting or any other legal requirements that do not depend on the status of the material as a waste; and
- negate the producers or user' statutory obligations or requirements under any other authorisations (including planning permission), enactments or regulations.

The Environmental Protection Agency (herein referred to as the Agency) accepts no responsibility for material produced in compliance with these criteria. It is the producer's responsibility to ultimately ensure the material is fit for the intended use. It is the user's responsibility to store and use the material as specified by the producer.

*Section 2***Definitions**

For the purposes of this Decision, the definitions set out in the European Union (Waste Directive) Regulations 2011 – 2020 and Waste Management Act 1996, as amended shall apply.

In addition, the following definitions/ interpretations shall apply:

- (1) 'batch' means a production quantity or stockpile of material produced at one time under conditions that are presumed uniform, that can be regarded as a single unit, and has a unique reference;
- (2) 'bio-waste' Biodegradable Garden and park waste, food and kitchen waste from households, offices, restaurants, wholesale, canteens, caterers and retail premises and comparable waste from food processing plants
- (3) 'CLP Regulation' Classification, Labelling and Packaging: Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006
- (4) 'competent authority' means any of the following: the Environmental Protection Agency (hereafter referred to as the Agency); a local authority, the National Waste Collection Permit Office, the Health and Safety Authority; the National Transfrontier Shipments of Waste Office, National Building Control and Market Surveillance Office; Transport Infrastructure Ireland, Geological Survey Ireland, Competition and Consumer Protection Commission, Food Safety Authority of Ireland or any other National or Irish governmental regulation body who may need to assess compliance with these criteria or any associated activity;
- (5) 'consignment' means a delivery quantity of recycled PET which leaves the production facility and may be contained in either one or several transport units;
- (6) 'Food Contact Regulation' European Union (Plastics and other materials) (Contact with food) Regulations 2017, as amended.
- (7) 'hazardous waste' As defined in the Waste Management Act 1996, as amended;
- (8) 'holder' means the natural or legal person who is in possession of recycled PET;
- (9) 'management system certification body' is a body which has an accreditation certificate issued by the Irish National Accreditation Board (INAB), or equivalent European accreditation body, to undertake quality management system certification to an approved standard;

- (10) ‘non-plastic component’ any material that is not plastic but is present in waste plastic before recycling.
- (11) ‘notified body’ is a body which has an accreditation certificate issued by the INAB¹, or equivalent European body to carry out assessment and verification of constancy or performance (AVCP) in accordance with harmonised standards falling under the remit of the Construction Product Regulations (EU No. 305/2011) and to be recognised as a:
- (i) notified product certification body; and/or
 - (ii) notified factory production control certification body;
- (12) ‘PET pellet’ Polyethylene terephthalate (PET) pellet that meets these end-of-waste criteria
- (13) ‘producer’ means the waste operator who produces the recycled PET under a waste authorisation;
- (14) ‘POPs Regulation’ Regulation (EC) No. 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC, as amended by Council Regulation (EC) No. 1195/2006, Council Regulation (EC) No. 172/2007, Commission Regulation (EC) No. 323/2007 6 and Commission Regulation (EC) No. 304/2009
- (15) ‘qualified person’ means suitably qualified, trained and experienced person who has the requisite knowledge and experience required for sampling, testing and waste characterisation;
- (16) ‘qualified staff’ means staff which are qualified by experience or training to monitor and assess the properties of recycled PET;
- (17) ‘REACH Regulation’ Regulation (EC) No. 1907/2006/EC concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
- (18) ‘recovery operation’ has the same meaning as ‘waste recovery activity’ assigned in the Waste Management Act 1996, as amended;
- (19) ‘recycling’ has the same meaning as assigned in the Waste Management Act 1996, as amended
- (20) ‘*food contact materials*’ as defined in Regulation (EC) No. 1935/2004² on materials and articles intended to come into contact with food and Regulation (EU) 2022/1616 on recycled plastic materials and articles intended to come into contact with foods
- (21) ‘specified use’ means the suitable specific circumstances, as declared in the statement of conformity, under which the recycled PET can be used;
- (22) ‘statement of conformity’ means a statement/declaration that the recycled PET conforms to end-of-waste criteria, product standards and specifications, and includes details of restrictions on use of the recycled PET;
- (23) ‘user’ means manufacturers, supply companies, contractors and all those organisations or individuals responsible for the end use of the product; and
- (24) ‘visual inspection’ means inspection using human senses or any non-specialised equipment.

The list of definitions and interpretations above is intended to assist understanding of these criteria and does not purport to be a legal interpretation of said terms.

Section 3

Criteria for recycled PET

1. Recycled PET shall cease to be waste where all of the following conditions are demonstrated as fulfilled:
 - (a) the recycled PET results from a recovery operation undertaken under an appropriate waste authorisation;
 - (b) the waste used as input for the recovery operation complies with the criteria set out in Part 1 of Annex I;
 - (c) the waste used as input for the recovery operation has been treated in accordance with the criteria set out in Part 2 of Annex I;
 - (d) the quality of the recycled PET complies with the criteria set out in Part 3 of Annex I,
 - (e) the producer has satisfied sampling and testing requirements set out in Part 4 of Annex I;

¹ In accordance with Article 40.1 of the Construction Product Regulations (Source: Irish Notification Procedures for the Purpose of the Construction Products Regulation (305/2011) (Government of Ireland, July 2020).

² Food Contact Materials <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02004R1935-20210327>

- (f) the producer has satisfied storage requirements set out in Part 5 of Annex I;
- (g) the producer has satisfied requirements set out in Sections 4 to 7;
- (h) the producer has satisfied requirements within any guidance issued by the Agency in relation to these criteria.

Section 4

Specific uses & restrictions on use

1. Recycled PET fulfilling the criteria set out in Section 3 shall only be specified in the statement of conformity as suitable for use for purposes listed in Part 1 of Annex II.
2. The restrictions on use as listed in Part 2 of Annex II shall be specified in the statement of conformity.

Section 5

Statement of conformity

1. The producer shall issue a statement of conformity using the template set out in Annex III for each batch or consignment of recycled PET, whichever is of smaller quantity.
2. The statement of conformity, excluding the section on chain of custody, shall be issued as documented evidence that the recycled PET meets these criteria and that the material ceases to be waste.
3. The statement of conformity, including a completed chain of custody, shall be issued prior to the recycled PET being dispatched to the next holder.
4. The statement of conformity shall state the suitable specific use(s) for the recycled PET and any associated restrictions as set out in Section 4.
5. The producer shall transmit the statement of conformity to the next holder of the recycled PET. The producer shall retain a copy of the statement of conformity for a minimum of 5 years after its date of issue and shall make it available to competent authorities upon request.
6. The statement of conformity may be in electronic form.
7. The producer shall give competent authorities access to the statements of conformity upon request.

Section 6

Quality Management system

1. The producer shall implement a quality management system suitable to demonstrate compliance with the criteria referred to in Sections 3 to 5 and Section 7, and specific monitoring requirements set out in Annex I for each criterion.
2. The quality management system shall be certified by a Management System Certification Body accredited by the Irish National Accreditation Board, or equivalent European accreditation body. This certification shall verify that the management system complies with the requirements of this Section. The verification shall be carried out annually.
3. The quality management system shall include a set of documented procedures concerning each of the following aspects:
 - (a) acceptance control and quantification of waste used as input for the recovery operation as set out in Part 1 of Annex I, including quarantine, segregation, and control of non-conforming waste inputs;
 - (b) recognising hazardous constituents or contamination in waste used as input;
 - (c) monitoring of the treatment processes and techniques described in Part 2 of Annex I;
 - (d) monitoring of the quality of recycled PET resulting from the recovery operation as set out in Parts 3 & 4 of Annex I (including sampling and testing);
 - (e) storage of recycled PET as set out in Part 5 of Annex I;
 - (f) identification and specification of suitable specific uses and restrictions on use as set out in Annex II;
 - (g) completion and sign-off of a statement of conformity as set out in Annex III;
 - (h) quarantine, segregation, control and quantification of non-conforming outputs from the recovery process;
 - (i) feedback from customers or product accreditation body concerning compliance with recycled PET quality, including assessment, investigation, corrective actioning and tracking of non-conformance reports;

- (j) record keeping of the results of monitoring conducted under points (a) to (i). All records including controls, inspections and training shall be maintained for a minimum of 5 years, which may include electronic records;
 - (k) review and improvement of the management system;
 - (l) training of staff.
4. Where any of the treatments referred to in Part 2 of Annex I is carried out by a prior holder, or the same holder, the producer shall ensure that the supplier implements a management system for the pre-treatment which complies with the requirements of this Section.
5. The producer shall maintain records of the quantities of :
- (a) waste used as input for the recovery operation per list of waste code;
 - (b) recycled PET that has been recovered and can be demonstrated to meet these criteria;
 - (c) recycled PET which meets these criteria and has been dispatched;
 - (d) non-conforming outputs from the recovery operation; and
 - (e) any non-conforming outputs reintroduced into the recovery operation.
6. The producer shall give competent authorities access to the management system and records upon request.
7. The producer shall make the management system and records available for inspection.

Section 7

Entry into effect

End-of-Waste Criteria No. ART28-0083 shall be available for use immediately following publication on the Agency's website.

Section 8

Compliance

The producer or holder of recycled PETs shall comply with any request made by a competent authority in relation to the provision of evidence of compliance with these criteria or any associated waste, product, or health and safety requirements.

Any person who gives either to an authorised person or a competent authority, information which to his or her knowledge is false or misleading in a material respect, shall be guilty of an offence.

ANNEX I

Criteria for recycled PET

Criteria	Self-monitoring requirements
Part 1. Waste used as input for the recovery operation	
1.1	Inputs shall be restricted to the non-hazardous list of waste codes specified in Table 1.
1.2	Inputs shall meet the incoming waste acceptance criteria of the waste authorisation under which the recycled PET is produced.
1.3	Each load of waste input shall be assigned a unique identifier.
1.4	Wastes input, once received by the producer, shall be kept permanently separate from contact with any other waste.
1.5	No hazardous wastes shall be used as inputs
1.6	Bio-waste, health care waste, and used products of personal hygiene shall not be used as input.
1.7	A due diligence assessment for each new source of input waste shall be completed to identify any potential for contamination.
1.8	Low code 16 02 14 (WEEE -discarded equipment other than those mentioned in 16 02 09 to 16 02 13) shall be sourced by a WEELABEX certified treatment operator, or equivalent certification.
<p>Acceptance control of all waste received (by visual inspection) and of the accompanying documentation shall be carried out by qualified staff which are trained on how to recognise waste that does not fulfil the criteria set out in this section.</p> <p>Where visual inspection or due diligence assessment raises any suspicion of possible hazardous properties or contamination, further appropriate monitoring measures shall be taken, such as sampling and testing where appropriate. The staff shall be trained on potential hazardous properties or contamination that may be associated with recycled PET and on material components or features that indicate these properties.</p> <p>Non-conforming waste shall be managed in accordance with quarantine requirements specified in the waste authorisation.</p>	

Table 1: Allowable inputs

LOW Code	Description	Restrictions
12 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS		
12 01 wastes from shaping and physical and mechanical surface treatment of metals and plastics		
12 01 05	Plastic shavings and turnings	
15 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED		
15 01 packaging (including separately collected municipal packaging waste)		
15 01 05	Composite packaging	
15 01 06	Mixed packaging	
15 01 09	Textile packaging	
16 WASTES NOT OTHERWISE SPECIFIED IN THE LIST		
16 02 wastes from electrical and electronic equipment		
16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13	Only waste originating from a WEELABEX certified treatment operator shall be accepted as an input into the recovery process.

Criteria		Self-monitoring requirements
17 CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)		
17 02 wood, glad and plastic		
17 02 03	Concrete	
19 WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE		
19 12 wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified		
19 12 04	Plastic and rubber	
20 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS		
20 01 separately collected fractions (except 15 01)		
20 01 10	clothes	
20 01 11	textiles	
20 01 39	plastics	

Part 2. Treatment process & techniques

2.1	All treatment processes (like crushing or grinding; sorting, separation, washing, drying needed to prepare the recycled PET for direct input into final use shall have been completed.	Treatment processes shall be undertaken in accordance with the waste authorisation under which the recycled PET is produced.
2.3	Each batch of the recycled PET produced shall be assigned a unique identifier.	

Part 3. Quality of recycled PET resulting from the recovery operation.

3.1	The recycled PET shall be graded/ classified according to a customer specification or the industry specification/ standard for direct use.	Qualified staff shall grade/classify each batch of recycled PET.
3.2	<p>The PET pellet shall comply with the relevant product technical standard(s), legislative requirements and customer specifications for direct use as a feedstock in plastic product manufacturing.</p> <p>The relevant product technical standards for general plastics include:</p> <p>IS EN 15343: Plastics - Recycled plastics - Recycling traceability and assessment of conformity; and</p> <p>IS EN 15347: Plastics - Recycled plastics - Characterisation of plastics wastes.</p>	<p>As regulations are subject to amendment and replacement, it is the producer and user's responsibility to ensure that current regulations are referred to.</p> <p>As technical standards and specifications are subject to regular review, it is the producer and user's responsibility to ensure that the latest version is referred to.</p>

Criteria		Self-monitoring requirements
3.3	<p>The recycled PET shall, as required, comply with the relevant provisions of the:</p> <ul style="list-style-type: none"> i. Classification, Labelling and Packaging (CLP) Regulation³; ii. Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation⁴; iii. Persistent Organic Pollutants (POPs) Regulation⁵; iv. Regulation (EC) No. 1935/2004 ⁶ on materials and articles intended to come into contact with food; v. Regulation (EU) 2022/1616 ⁷ on recycled plastic materials and articles intended to come into contact with foods; vi. Or any other relevant legislation requirements as applicable or as identified by the Agency. 	<p>As technical standards and specifications are subject to regular review, it is the producer and user's responsibility to ensure that the latest version is referred to .</p> <p>As regulations are subject to amendment and replacement, it is the producer and user's responsibility to ensure that current regulations are referred to.</p>

Part 4. Sampling & testing

4.1	<p>A sample shall be collected and tested for each batch of the recycled PET produced. The sample shall be tested at an accredited laboratory, using accredited test methods, where available, for all physical and chemical parameters specified in the relevant technical standards and/or customer specification.</p>	<p>Samples shall be collected by a qualified person.</p>
4.2	<p>The recycled PET shall contain no more than 2% moisture free weight of non- plastic component</p>	<p>Qualified staff shall carry out visual inspections of each batch. Representative samples of the moisture-free plastic shall be analysed gravimetrically to measure the content and nature of any non-plastic component.</p>

Part 5. Storage

5.1	<p>Recycled PETs pending the results of testing shall be identified and physically separated into individual stockpiles per representative sample.</p>	<p>A storage and labelling plan shall be established and maintained. Qualified staff shall regularly monitor storage and labelling plans and records and undertake a review thereof bi-annually.</p> <p>Any recycled PET stored greater than 24 months shall be re-classified as waste and managed accordingly until classified otherwise.</p>
5.2	<p>Prior to dispatch or use, recycled PET that fulfils the criteria shall be kept in designated areas, separate from any other products or waste.</p>	
5.3	<p>The recycled PET shall not be stored for a period greater than 24 months. Products that exceed the time limit for storage of a period of 24 months shall be deemed a waste unless otherwise demonstrated be re-testing against the criteria.</p>	

³ Classification, Labelling and Packaging - Regulation (EC) No 1272/2008 (CLP)

⁴ Registration, Evaluation, Authorisation and Restriction of Chemicals - Regulation 1907/2006/EC (REACH)

⁵ Persistent Organic Pollutants - Regulation 850/2004/EC (POPs)

⁶ Food Contact Materials <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02004R1935-20210327>

⁷ Recycled plastics to come into contact with food materials <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022R1616>

ANNEX II

Specific use & restrictions on use

1. Specific uses

- 1.1 The recycled PET that is produced in compliance with these criteria shall be suitable as a virgin substitute for virgin PET raw material in the manufacture of plastic products.
- 1.2 In the case of the recycled PET being used in a plastic product in direct food contact, *Regulation (EC) No. 1935/2004*⁸ on materials and articles intended to come into contact with food, and *Regulation (EU) 2022/1616*⁹ on recycled plastic materials and articles intended to come into contact with foods

2. Restrictions on use

- 2.1 The recycled PET is limited to sale and use in Ireland and in any other destination country where approval has been attained from the country's relevant competent authority that the recovered material is recognised by the competent authority in that jurisdiction as a non-waste prior to the material being placed on that market.
- 2.2 In the event of the material being exported, the National Transfrontier Shipments Office shall be contacted, and confirmation attained that they recognise this approval from another jurisdiction prior to the material being placed on an export market.

⁸ Food Contact Materials <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02004R1935-20210327>

⁹ Recycled plastics to come into contact with food materials <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022R1616>

ANNEX III

Statement of conformity with the end-of-waste criteria referred to in Section 5.1

1.	<p><u>Producer of the recycled PET</u> Producer Organisation Name: Registered Company Address: Waste Authorisation Ref. No.: Address & Eircode of Production: Contact Tel: Contact E-mail: Date of production:</p>
2.	Quantity of the consignment in kg:
3.	<p><u>Classification/ specification & suitability for use</u> (a) The material in this consignment is only suitable for the following specified use(s): <i>Specify applicable suitable uses</i></p> <ul style="list-style-type: none"> •
4.	<p>The recycled PET in this consignment complies with the customer specification, industry specification or standard listed below:</p> <ul style="list-style-type: none"> •
5.	<p><u>Restrictions on use</u> The material in this consignment is <u>not suitable</u> for use in:</p> <ul style="list-style-type: none"> •
6.	The recycled PET in this consignment meets the criteria specified in Single Case End-of-Waste decision Art28-0083.
7.	The producer of recycled PET in this consignment applies a management system certified by a Management System Certification Body accredited by the Irish National Accreditation Board, or equivalent European accreditation body.
8.	<p>Declaration of the producer in this consignment: I certify that the above information is complete and correct to the best of my knowledge: Name: Date: Signature:</p>
9.	<p><u>Chain of custody</u> Producer As per Item 1. Date of transfer to next holder:</p> <hr/> <p>Haulier (where applicable) Organisation Name: Contact Tel: Contact E-mail: Date of transfer to next holder:</p> <hr/> <p>Any other holder (where applicable) Organisation Name: Contact Tel: Contact E-mail: Date of transfer to next holder:</p> <hr/> <p>User Organisation Name (if applicable): Name: Contact Tel: Contact E-mail: Use Location:</p> <hr/> <p>NOTE: it is the responsibility of the holder who transfers the recycled PET to the next holder to ensure the chain of custody has been completed to include details of the next holder.</p>